Teaching Video NeuroImage: Bilateral Hemifacial Spasm in Giant Cell Arteritis

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An 80-year-old man developed bitemporal headache and scalp tenderness. Both temporal arteries were prominent (Figure-A), with “halo-sign” on ultrasonography. Temporal arteritis was diagnosed and oral prednisone (50mg/day) initiated. Three days later, he developed spasms of the orbicularis oculi and frontalis muscles with eyebrow elevation and eye twitching (“other Babinski sign”), consistent with bilateral hemifacial spasm (Video). Brain-MRI and time-of-flight angiography revealed exclusively supratentorial acute infarcts (Figure-BC) without intracranial neurovascular conflicts. Intravenous methylprednisolone
(1g/day for 5 days) was started with resolution of spasms within 24 hours and clinical stabilization. Temporal artery inflammation may cause facial nerve irritation and hemifacial spasm (Figure-D).


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References


Video: Bilateral hemifacial spasm (right>left).
Figure: A) Prominent right temporal artery; B-C) Brain-MRI DWI images showing multiple infarcts; D) Pathophysiological hypothesis: TBFN passes in the same anatomical region as the FBSTA and is sometimes injured in temporal artery biopsies (not performed in our patient). Temporal artery inflammation may cause TBFN irritation and hemifacial spasm predominantly involving the upper facial muscles.

Abbreviations: FBSTA, frontal branch of the superficial temporal artery; TBFN, temporal branch of the facial nerve.